

Review of Environmental and Other Impacts

For use by applicants to assess the environmental impacts in accordance with the National Environmental Policy Act of 1969, National Historic Preservation Act of 1966, and Executive Orders 11514 and 13287

Date: _____

Proposed Activity (construction, modernization, or major alteration and renovation): _____

Applicant/Grantee: _____

Principal Investigator: _____

A. USE OF NATURAL RESOURCES

This set of criteria is concerned with the *accessibility* of nonrenewable natural resources such as land, minerals, and fuels as well as the flow resources (water and air) that are constantly renewed but in which short-term or local shortages might occur.

Criteria	Impact		Description of Environmental Impact (if applicable)
	YES	NO	
<i>Will the project:</i>			
1) Change traditional use of the land parcel (by rezoning etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	Present zoning: _____ Present use of site: _____ Proposed zoning: _____
2) Alter use of other land by related development of stores, roads, or site changes?	<input type="checkbox"/>	<input type="checkbox"/>	
a) Generate new stores?	<input type="checkbox"/>	<input type="checkbox"/>	
b) Cause new roads?	<input type="checkbox"/>	<input type="checkbox"/>	
c) Cause new parking?	<input type="checkbox"/>	<input type="checkbox"/>	
Before answering question 3), consider these items: soil borings, <i>have/have not</i> been completed; proposed facility <i>will/will not</i> have foundations similar to other facilities in the area; the facility <i>is/is not</i> in a flood plain.			
3) Use land for purposes unsuitable to its physical characteristics?	<input type="checkbox"/>	<input type="checkbox"/>	
4) Include the use of wetlands (swamps, marshes, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	
5) Block access to known mineral deposits?	<input type="checkbox"/>	<input type="checkbox"/>	(Sand, gravel, clay, stone, or other common building materials are not considered mineral deposits.)
6) Increase fuel and mineral consumption in state by more than 1% annually?	<input type="checkbox"/>	<input type="checkbox"/>	Est. annual fuel requirements: _____ gallons of fuel _____ cubic feet of natural gas _____ tons of coal _____ kWh of electricity Expected source(s) of these fuels:

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	YES	NO	
7) Decrease the volume of water in a lake, river table, reservoir, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
8) Change traditional use of a body of water?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
9) <i>Not</i> comply with local and State land use planning?	<input type="checkbox"/>	<input type="checkbox"/>	
B. POLLUTION This set of criteria concerns the processes that generate pollution. These include the introduction of pollutants into the environment, changes in the flow of energy through the environment, and changes in the composition of environments through the augmentation or deletion of substances that are naturally present. The criteria are also directly concerned with the production and one-time use of materials and the proper disposal of wastes.			
Criteria	Impact		Description of Environmental Impact (if applicable)
	YES	NO	
<i>Will the project:</i>			
1) Increase identifiable ambient air pollution levels from a new emission source or from existing sources?	<input type="checkbox"/>	<input type="checkbox"/>	
2) Increase identifiable ambient air pollution levels through a major increase in the number of or use of automobiles, trucks, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	Approximate number of new employees: _____
3) Exceed city or State health standards with exhausts from fume hoods?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
4) Involve			
a) Dredging or swamp drainage?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe
b) Construction of a waste treatment plant?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe capacity & location.

Criteria	Impact		Description of Environmental Impact (if applicable)
	YES	NO	
c) Discharge of untreated human waste directly into a lake, river, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
d) Discharge of laboratory wastes or biohazard wastes directly into a lake, river, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
5) Overload existing waste treatment plants due to new loads (volume, chemicals, toxicity, etc.) water?	<input type="checkbox"/>	<input type="checkbox"/>	Please obtain and submit a connection permit or other approval from local sewer authority.
6) Cause soil erosion (after completion of construction phase) or leaching of foreign substances (such as salt) into soil?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
7) Allow seepage of contaminants into the water table?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
8) Increase the stress placed upon an identified earthquake fault	<input type="checkbox"/>	<input type="checkbox"/>	If yes, please include a statement from a structural engineer.
9) Create an identifiable change in aquatic life by discharge of hot water?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
10) Decrease the percolation on more than one acre of land?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
11) Cause storm water runoff onto land owned by others?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
<p>Consider the following statements prior to answering questions 12-14: Completed and occupied project facility <i>will/will not</i> emit noises in excess of local noise standards. Is project facility near a wildlife sanctuary? Are outdoor animal facilities included?</p>			
12) Produce noises considered offensive to a human population (i.e., over 55 decibels (dB) A-weighted Ldn – day/night average sound levels with a 10-dB penalty applied to nighttime activities at the property boundary?) Produce cumulative adverse noise effects in conjunction with existing	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.

Criteria	Impact		Description of Environmental Impact (if applicable)
	YES	NO	
13) Create sounds that result in changes in behavior patterns of animals?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
14) Introduce major new sources of unshielded radiation?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
15) Cause shock waves and/or vibration (after construction phase)?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
16) Change the direction and wind velocity as to affect the local population (i.e., high-rise building)?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
17) Cause a new, large volume of non-recycled items?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
18) Result in the non-recycling of recyclable items such as laboratory glassware, animal cages, and office paper?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe. If no, indicate number of Glassware-washing machines: _____ Cage-washing machines: _____
19) Generate solid wastes that cannot be properly disposed of by existing facilities?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe. If no, describe proposed methods and disposal sites.
20) Dispose of solid wastes in polluting landfills, wells, caves, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
21) Require storage of waste pending technology for safe disposal?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
22) <i>Fail to comply</i> with Federal, State, & local requirements for waste handling, transportation, or disposal methods?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe proposed methods.

C. POPULATIONS

This section of the initial criteria addresses changes in human & plant populations. *NOTE:* For these criteria, the *affected area* is defined as being *greater* than 160 acres in size.

Criteria	Impact		Description of Environmental Impact (if applicable)
	YES	NO	
<i>Will the facility cause:</i>			
1) A 5% change in the density of the local population?	<input type="checkbox"/>	<input type="checkbox"/>	Est. local population: _____ Number of new employees: _____
2) Alteration of transportation, health, education, and/or welfare service?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
3) Change in social service needs by altering population's age distribution pattern (new schools, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
4) A 5% change in the transient population?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe. Include est. number of Visitors: _____ Patients: _____ Students: _____
5) Changes in genetic engineering directed at the human population?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
6) Violation of local, State, or Federal standards pertaining to population densities of or conservation of plants and animals?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe. Also describe any approvals needed or submit those already obtained.

D. HUMAN SERVICES

As society has evolved, traditional self-sufficient human communities have given way to dense populations that depend upon the development and application of technology. Man's highly complex, technological environments are maintained by a variety of services, ranging from the provision of the basic necessities of food and water to complex systems of economic exchange. These services are largely interdependent, and their complexities must be considered.

NOTE: In this section, the *human environment* impacted upon is defined as *less* than 160 acres in size.

Criteria	Impact		Description of Environmental Impact (if applicable)
	YES	NO	
<i>Could the proposed project disrupt:</i>			
1) Food supplies for 48 hours?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
2) Water supplies for over 48 hours?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
3) Electrical power for 48 hours?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
4) Heating supplies (natural gas, heating oil) for over 48 hours?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
5) Or deprive population of housing for over 48 hours?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
6) Removal of sewage for more than 12 hours?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
7) Removal of solid waste (trash) for more than 7 days?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
8) Existing health services' response in case of a disaster?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.

Criteria	Impact		Description of Environmental Impact (if applicable)
	YES	NO	
9) Telephone, telegraph, radio, or U.S. Postal service for over 2 weeks?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
10) Transit service for more than 2 weeks?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
<i>Will the proposed project use more than 5% of:</i>			
11) Remaining electrical capacity?	<input type="checkbox"/>	<input type="checkbox"/>	Estimated daily usage is ____ kWh. Please obtain & submit an approval letter from local utility or plant engineer.
12) Remaining water?	<input type="checkbox"/>	<input type="checkbox"/>	Estimated daily usage is ____ gallons. Please obtain & submit an approval letter from local utility or plant engineer.
13) Available capacity of the sewage treatment system (branch lines, mains, plants)?	<input type="checkbox"/>	<input type="checkbox"/>	Estimated daily flow is ____ gallons. Please obtain & submit an approval letter from local utility.
14) Available capacity of trash disposal system (collection, incinerator plant, landfill)?	<input type="checkbox"/>	<input type="checkbox"/>	Also clearly explain proposed handling and disposal of chemical wastes, biohazards, syringes, and other special wastes.
15) Available heating fuel (gas, coal or heating oil)?	<input type="checkbox"/>	<input type="checkbox"/>	Annual quantities have already been described. Explain which of these fuels, if any, are in short supply.
<i>Will the proposed project decrease:</i>			
16) By 5% the food delivery system by removal of retail food stores etc.?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
17) By 5% the area's domestic housing by demolition, closing, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain. Will <i>any</i> housing be demolished, closed, etc.?

Criteria	Impact		Description of Environmental Impact (if applicable)
	YES	NO	
18) By more than 5% the use of existing transit systems (bus, train, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain. Relate to extent of new employment.
19) Accessibility to routine health services by altering point-of-service delivery?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
<i>Will the proposed project :</i>			
20) Increase by more than 5% the patient load of the area's routine care services?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
21) Change the availability of social services by opening or closing facilities?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
22) Increase by more than 5% the number of social services recipients (through unemployment)?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
23) Cause discontinuation of existing stops or train stations?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain.
24) Increase by more than 5% the annual volume of telephone, telegraph, or mail?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, explain. Relate to new employment or change in location of employees.
25) Eliminate employment sources for 10% of the population?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
26) Change school enrollment by more than 5%?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.

E. HUMAN VALUES

The fifth set of criteria is directed toward human values concerning the environmental qualities generally agreed upon to the extent that they are stated in statutes, standards, or regulations.

Criteria	Impact		Description of Impact (if applicable)
	YES	NO	
<i>Will the proposed project:</i>			
1) Affect a site listed in the National Register of Historic Places (or eligible for inclusion in) the National Register of Historic Places?	<input type="checkbox"/>	<input type="checkbox"/>	<i>Historical preservation:</i> Obtain and submit clearance letters from State office. <i>Architectural, archeological, and cultural:</i> Obtain and submit clearance from local government or local society.
2) Affect any threatened or endangered species?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.
3) Violate local, State, or Federal standards on aesthetics, or noise?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, describe.